Waste, Waste Reduction and Recycling



Draft Recommendations
June 16, 2008

Working Group Members

- Janis Zinn Team Lead
- Bruce England
- Tracy Gibbons
- Jane Horton
- Beth Mezias
- David Oliver
- Esperanza Sanz-Escudero



With input and assistance from:

- Lori Topley City of Mountain View
- Rich Gurney Bay Counties SMaRT
- Mark Bowers City of Sunnyvale, Solid Waste Mgr.
- Heidi Melander City of San Jose, Env. Services Spec. and NCRA

Mission

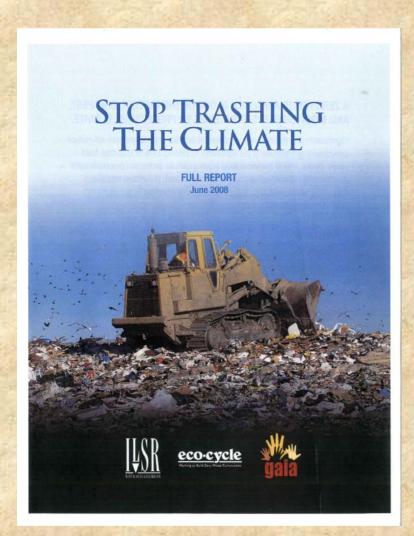
"To reduce greenhouse gas emissions through the reduction of waste including the proper management and disposal of materials through education of the public."

Goal

- Set policies towards Zero Waste
 - Recycle and waste education
 - Increase diversion from landfill



"Stop Trashing the Climate"



Zero Waste approach – fast, cheap, effective strategy to protect climate

Waste increases resource extraction, transportation, processing and manufacturing

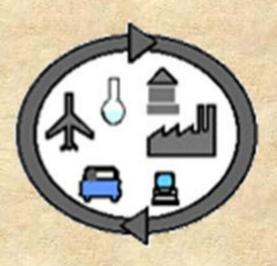
Landfills are largest source of methane emissions in U.S. – 72 times more potent than CO2

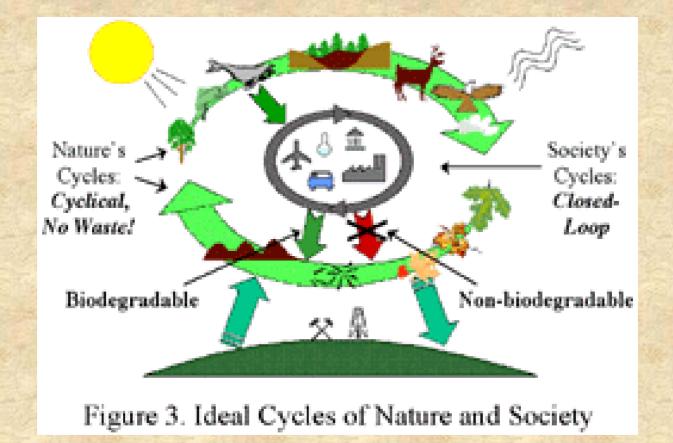
Composting avoids methane, improves plant growth, restores climate and soil

Incentives for extended producer responsibility reduce waste and create locally-based industries

What is Zero Waste?

- Zero Waste of resources for 100% efficient use of energy, materials and human resources
- Zero Solid Waste
- Zero Hazardous Waste
- Zero Emissions to air, water, soil
- Zero Waste in Production Activities
- Zero Waste in Administrative Activities
- Zero Waste in Product Life Cycle
- Zero Toxins





Reduced consumption, waste, costs and risks to employees and the environment Reduced toxics creates less hazardous waste Closed loops for materials

How can less waste help?

The U.S. is 5% of world's population BUT we:

- Generate 22% of CO2 emissions
 - Use 30% of world's resources
 - Create 30% of world's waste



IF we reduce waste creation and disposal 1% per year and divert 90% of discards from landfill by 2030 THEN

- GHG emissions decrease by 406 megatons per year (1 megaton = 1 million metric tons)
- Equivalent to closing 1/5 of existing 417 coal-fire plants in US
- Achieves 7% of cuts needed by 2030 to stabilize climate by 2050
- Similar effect as improving fuel efficiency (5.9%), expanding forests (7.6%), retrofitting lighting (4.1%)
- Avoids environmentally harmful solutions such as nuclear energy expansion



Recycling is the "low hanging fruit"

- Much infrastructure is already in place
- Public awareness is high
- Easy public participation
- Saves money
- Generates income



But there is still room for improvement

What Mountain View does today

Homes – curbside pickup of garbage, recycle paper, cardboard, glass, metal, plastic, yard waste, batteries, motor oil, SMaRT

Apartments- central dumpsters, group recycle carts for newspaper, mixed paper, plastic, bottles and cans

Compost -

workshops, free compost, curbside yard trimmings

Holiday Trees –

free curbside pickup and extra re-cycle at holidays

Business- 64% of waste. Free recycle, small business hazardous waste disposal, C&D debris, Green Business Certification

Schools-recycle and compost education, no styrofoam, SMaRT

Household Hazardous Waste-Santa Clara County by appt.

Electronic Waste -On Call Plus Program (fee & no fee), business take back bulbs, batteries, phone

Resource Newsletter- 3 times/year, collection schedule, acceptable material list

SMaRT Station Facts

Sunnyvale Material Recovery and Transfer







- Receive and recover recyclable materials from garbage collected in MV, PA, and Sunnyvale
- Transfer the residual portion of the garbage to Kirby Canyon Landfill, Morgan Hill
- Receive, process and ship to composting the yard trimmings collected
- Receive, sort and prepare for market recyclables collected at curbside
- Provide drop-off recycle center for residents

O. Create and adopt a Zero Waste Action Plan

Incorporate Zero Waste policy into long range planning

Budget for waste reduction programs

Provide incentives to residents and business to judiciously use, reuse and recycle materials

Motivate businesses to produce less toxic, more durable, recyclable products

City operations to include zero waste provisions

1. Increase diversion from landfill by increasing utilization of SMaRT station



- Diversion rate based on 2004 tonnage amount land filled
- Current rate 72% total (State mandates 50%). Goal 90% by 2020.
- About 29% organic compostable
- Additional material acceptance based on market value
- Construction and Demolition diversion
- Additional resources to process and educate
- Promote 20-gal. mini-can option
- Cooperation with Sunnyvale and Palo Alto, seek new partners?



2. Divert organic materials from landfill by creating compost opportunities

- Support donation of food to non-profits
- On-site composting for local business
- Curbside pickup of organic material (SF)
- Educate landscapers –private and city
- Mulching mowers and soil enrichment





"Composting is Key to Restoring the Climate and our Soils"
-Stop Trashing the Climate, June 2008

"If it came from something that was once alive, you can compost it."







3. Educate the public on recyclable material processing and eco-conscious purchasing

Clean recyclables = increased diversion "Just Say No" to plastic water bottles
Reduce junk mail
Paperless bill pay
HDTV conversion Feb. 2009
B.Y.O.C.



5,000 mile oil changes
We dirty cars

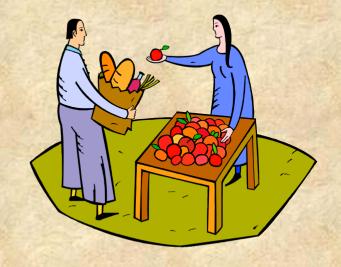


4. Discourage single use bags within the city



Educate public and employees: Bring your own bag / no bag "Did you bring your bag today?"

Partner with business to supply re-usable bags
Ensure bag recycling
Limit plastic bags at Farmer's Market



5. Ban the use of Polystyrene food containers

- Does not biodegrade under any conditions
- Goes to landfill after one use
- Petroleum based source
- Health concerns
- Source of litter
- City should support small businesses
- Precedent to ban in other municipalities



6. Partner with schools to enhance recycling education and zero-waste lunch programs

Outreach to the community through education

of children

Use Green Schools
 Initiative as a model

*Green Team

*Environmental Vision Statement

*School Audit

*Action Plan

*Monitor & Evaluate

*Integrate Greening into the Curriculum

*Inform, Involve, Celebrate

Zero Waste lunch programs

Include MVWSD and LASD





7. Provide accessible and visible recycle bins in public places and businesses

- Parks
- Downtown
- City Events
- Library
- Restaurants
- Bus Stops
- Shopping Centers



8. Create ordinances which encourage multitenant and multi-cultural recycling programs

- Multi-Family Dwellings (MFD) residents generate large amounts of residential waste
- Cultural and language diversity is more common in MFD communities
- Most MFD buildings are not designed for recycle needs and are not suited to curbside pick-up



Average MFD recycle rate is 15% diversion, and rarely exceeds 20%

- Develop and distribute
 multi-lingual recycle education
 materials, door to door and
 through community organizations
- Create Recycling Ambassadors (HS kids?)
 to interact, explain recycle benefits, assist
 with compliance and possibly collect
 recyclables make it personal
- Provide incentives to landlords to increase MFD recycling, include non-compliance penalties in future.

9. Develop resources to promote Free-cycle and re-use networks

Increase number of community wide yard sales





Link the City web-site to



- Connect business to existing resources
 - Promote business "swap meets"
- Support donation organizations, e.g. Goodwill
- Educate to reduce consumerism



10. Request Council support of waste reduction legislation



- California Product Stewardship Council Extended Producer Responsibility Resolution
 - Urban Environmental Accord
 Inclusive Green Cities Declaration
 - Zero Waste Action Plan



Design a sustainable future through waste management



- Change waste to a "potential resource"
- Do not accept waste as a normal course of events
- Reuse, repair, resale, recycle, and compost
- Redesign products and processes to eliminate hazards and use renewable resources
- Use full life-cycle thinking in product and process design
- Design our waste for future application
- Efficient use of resources to support the future

When we Reduce, Re-use, and Recycle....



we make Mountain View a sustainable community.